

RATE OF RETURN ON NET WORTH FOR HOME AND LOCAL LEISURE COMPANIES (1)

COMPANY	Rate of Return on Net Worth									
	ADJUSTED BETA	UNADJ. BETA	RESIDUAL STD DEV	1988	1989	1990	1991	1992	5-year Average	1996-1998 Projected
CEDAR FAIR L.P.	0.55	0.24	2.3565	55.0%	66.7%	64.1%	65.3%	52.8%	60.8%	61.5%
CINEPLEX ODEON	1.45	1.63	8.8525	10.8	NMF	NMF	NMF	NMF	10.8	15.5
DISNEY (WALT)	1.20	1.30	2.7059	22.1	23.1	23.6	16.4	17.4	20.5	18.0
ELECTRONIC ARTS	1.75	2.13	6.8265	27.0	18.5	20.9	24.0	28.0	23.7	22.0
HANDLEMAN CO.	1.20	1.29	5.3005	21.1	18.0	13.1	15.3	15.5	16.6	14.5
HARCOURT GENERAL	0.90	0.78	3.4580	10.4	3.5	3.0	NMF	11.5	7.1	13.0
KING WORLD PRODUCTIONS	1.25	1.33	3.8581		117.5	57.4	38.6	27.7	60.3	25.0
NEW LINE CINEMA	1.20	1.26	6.0757	21.4	2.9	17.9	13.6	5.2	12.2	11.5
PARAMOUNT COMMUNIC.	1.05	1.02	3.1385	17.0	7.0	6.8	3.1	6.7	8.1	8.5
Average	1.17	1.22	4.7302	23.1%	32.2%	25.9%	25.2%	20.6%	24.5%	21.1%

- Notes:
- (1) The five Value Line cable companies are Cable Vision Systems, Comcast Corp., Multimedia, Inc., Tele Communications, Inc., and Viacom, Inc.
 - (2) These companies are a subset of the Value Line Recreation Companies, excluding Gaylord Entertainment and Time/Warner due to these companies' substantial cable television business.

**FIVE-YEAR FORECASTED PRETAX OVERALL RATE OF RETURN FOR
HOME AND LOCAL LEISURE COMPANIES (1)**

	Net Profit	Income Tax Rate	L-T Debt	Net Worth	Percent Earned Total Capital	Pre-Tax Net Profit(2)	Interest Expense(3)	Forecasted Pretax Overall Rate of Return(4)
CEDAR FAIR L.P.	\$80	0.0%	\$50	\$130	45.5%	\$80	\$2	45.6%
CINEPLEX ODEON	46	5.0	260	300	10.0	48	10	10.4%
DISNEY (WALT)	1,925	39.0	3,700	10,800	14.0	3,156	105	22.5%
ELECTRONIC ARTS	85	34.0	0	385	22.0	129	0	33.5%
HANDLEMAN CO.	69	39.0	100	475	13.0	113	6	20.7%
HARCOURT GENERAL	210	38.0	1,200	1,640	9.0	339	46	13.6%
KING WORLD PRODUCTION	130	40.0	0	525	25.0	217	0	41.3%
NEW LINE CINEMA	20	37.0	100	175	8.0	32	2	12.4%
PARAMOUNT COMMUNIC.	475	32.0	800	5,470	8.5	699	58	12.1%
Average								23.6%

- Notes:
- (1) Home and Local Leisure Companies are a subset of the Value Line Recreation Industry which is presented in Edition 12. For purposes of this analysis, Time/ Warner and Gaylord Entertainment have been excluded due to their extensive cable television operations.
 - (2) Pretax Net Profit equals Net Profit divided by one, minus Income Tax Rate ($NP/(1-T)$).
 - (3) Interest Expense equals Percent Earned Total Capital times the sum of L-T Debt and Net Worth minus Net Profit ($\%TC \times (LTD+NW) - NP$).
 - (4) Forecasted Pretax Overall Rate of Return equals the sum of Pretax Net Profit, plus Interest Expense divided by the sum of L-T Debt and Net Worth ($(PTNP+IE)/(LTD+NW)$).

ATTACHMENT 7

SUMMARY OF KEY FINANCIAL STATISTICS FOR THE GROUPS

GROUP KEY FINANCIAL STATISTICS

<u>Group</u>	<u>Adjusted Beta</u>	<u>Cost of Debt 5-Year</u>	<u>Debt 1992</u>	<u>Rate of 5-Year</u>	<u>Return on Forecast</u>	<u>Equity Average</u>	<u>Pre-Tax Overall Rate of Return</u>		
							<u>5-Year</u>	<u>Forecast</u>	<u>Average</u>
Telco (12)	0.90	8.3	8.1	13.9	16.8	15.4	15.1	17.3	16.2
Telco (All)	0.96	8.4	8.2	12.5	16.5	14.5	14.3	16.6	15.5
Broadcast	0.98	11.1	10.0	18.3	17.6	18.0	17.8	22.5	20.2
Recreation	1.13	11.4	10.0	14.8	18.4	16.6	19.2	20.7	20.0
Leisure	1.17	9.1	9.2	16.2	21.1	18.7	26.7	23.6	25.2
Recreation-2	1.18	9.7	10.5	13.0	17.9	15.5	21.2	20.9	21.1
Leisure/Vacation	1.18	8.9	8.9	14.7	19.0	16.9	23.4	20.9	22.2
S&P 70	1.24	10.7	9.5	14.5	17.5	16.0	19.2	23.1	21.2
Cable TV	1.30	11.0	8.5	NMF	19.3	19.3	14.0	21.4	17.7

GROUP KEY FINANCIAL STATISTICS

<u>Group</u>	<u>Adjusted Beta</u>	<u>Cost of Debt 5-Year</u>	<u>1992</u>	<u>Rate of Return on Equity</u>			<u>Pre-Tax Overall Rate of Return</u>		
				<u>5-Year</u>	<u>Forecast</u>	<u>Average</u>	<u>5-Year</u>	<u>Forecast</u>	<u>Average</u>
S&P 70	1.24	10.7	9.5	14.5	17.5	16.0	19.2	23.1	21.2
Telco (12)	0.90	8.3	8.1	13.9	16.8	15.4	15.1	17.3	16.2
Broadcast	0.98	11.1	10.0	18.3	17.6	18.0	17.8	22.5	20.2
Leisure/Vacation	1.18	8.9	8.9	14.7	19.0	16.9	23.4	20.9	22.2
Average	1.08	9.8	9.1	15.4	17.7	16.5	18.9	21.0	19.9
Standard Deviation	0.14	1.2	0.7	1.7	0.8	1.0	3.0	2.3	2.3

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S&P 70	1.24	10.7	9.5	14.5	17.5	16.0	19.2	23.1	21.2
Telco (All)	0.96	8.4	8.2	12.5	16.5	14.5	14.3	16.6	15.5
Broadcast	0.98	11.1	10.0	18.3	17.6	18.0	17.8	22.5	20.2
Recreation-2	1.18	9.7	10.5	13.0	17.9	15.5	21.2	20.9	21.1
Average	1.09	10.0	9.6	14.6	17.4	16.0	18.1	20.8	19.5
Standard Deviation	0.12	1.0	0.9	2.3	0.5	1.3	2.5	2.5	2.3

AUS CONSULTANTS FACT SHEET

The Company

AUS Consultants is the consulting division of AUS, Inc., a diversified New Jersey-based firm with revenues of over \$50 million, 500 full-time employees, and 500 part-time employees. The company, AUS, Inc., was founded in 1967 by Joseph F. Brennan as a utility-financial consulting firm. It is from that beginning that AUS Consultants has emerged.

AUS Consultants

AUS Consultants employs over 100 persons, more than half of which are professional staff. AUS Consultants is composed of six operating companies with offices in seven nationwide locations. The component consulting companies are:

- Utility Services Group (Arkansas, California, New Jersey, Pennsylvania, Wisconsin)
- Valuation Services Group (New Jersey, Wisconsin)
- Industry Analysis Group (Pennsylvania, Texas)
- ICR Survey Research Group (Pennsylvania)
- Marketing Services Group (Pennsylvania)
- Software Group (Colorado)

AUS Consultants provides consulting services to individual firms, industry associations, regulatory bodies, and government agencies. Problems are addressed in a coordinated and integrated manner using the combined resources of the individual consulting groups. Consulting services provided include:

- Appraisal Services
 - Tangible and Intangible Asset Valuation
 - Ad Valorem Tax Appraisal
 - Capital Stock Appraisal
- Expert Testimony
 - State and Federal Regulatory Bodies
 - State and Federal Courts
 - U.S. Senate and Congressional Committees

- Industry Market Analyses
 - Agriculture
 - Automobile Dealers and Suppliers
 - Energy
 - Steel
 - Utilities
- Market Research
 - Survey Design, Implementation, and Analysis
 - Cost Effective Nationwide Telephone Interviewing
 - Surveys of Consumers, Industry Management, Medical and Scientific Professionals, and Politicians
- Utility Financial Analyses
 - Rate of Return
 - Rate Base Valuation
 - Rate Design
 - Cost of Service
 - Lead and Lag Studies

Industry Analysis Group Services

The Industry Analysis Group provides the management of major corporations and utilities with advice and recommendations on business decisions. The Group's analyses are based on reliable quantitative estimates of the effects of external conditions on a firm's sales volume, revenues and production costs. Evaluations of industry performance under alternative external general economic or government policy conditions for corporations, industry associates, and government agencies also are performed by the Group.

IAG professionals provide consulting services to clients in electric utilities, natural gas transmission and distribution companies, steel and raw materials, crude oil and refined products, automotive dealers and component suppliers, and telecommunications. IAG also prepares special studies for individual companies and industry associations. The experts at IAG have more than fifty years experience analyzing numerous aspects of these industries. Their training and experience extends to market research studies, strategic planning, economic analysis, modeling, forecasting, litigation support, support for investment banking and management consulting.

IAG senior consultants advise managers of client companies concerning emerging strategic issues, generate in-depth reports on specific industry topics and conduct seminars for clients on current industry developments.

GEORGE R. SCHINK, Ph.D.
Chairman, Chief Executive Officer
AUS Consultants
Industry Analysis Group
200 Four Falls Corporate Center - Suite 308
West Conshohocken, PA 19428

PROFESSIONAL EXPERIENCE

AUS CONSULTANTS, INDUSTRY ANALYSIS GROUP, West Conshohocken, PA

Chairman and Chief Executive Officer

6/88-Present

Responsible for overall management and strategic guidance of the Industry Analysis Group, as well as the design and execution of consulting projects related to the automotive, energy, utility, and telecommunications industries. These projects include market analysis, development of sales volume and revenue models, development of price and cost models, industry studies, and analysis of the impact of government policy and regulatory changes on these industries. The results of these studies are provided to clients as reports and in direct presentations to senior management. Also, Dr. Schink has extensive experience in presenting testimony before regulatory bodies and in the courts.

THE WEFA GROUP (Wharton Econometrics), Bala Cynwyd, PA

Senior Vice President, Consulting Services

5/87-5/88

Vice President, Research and Development

6/83-5/87

Responsible for the development, enhancement, specification, maintenance of the Wharton econometric models. Also responsible for design, execution, and economic content of large contract research projects, preparation and presentation of testimony, general quality control of Wharton economic analysis and forecasting products, internal training of economic staff, and design inputs for econometric and statistical software.

Key contract research projects include an analysis of the macroeconomic impacts of local content legislation and an analysis of the economy-wide effects of the FCC access charge plan. Major model development projects include a redesign of Wharton's multiregion model of New York State and respecification and updating of Wharton's Quarterly Model.

Vice President, U.S. Modeling Services

1/80-6/83

Responsible for coordinating model development/enhancement activities of Wharton's U.S. forecasting services, including the Long-Term Forecasting Model, the Quarterly Forecasting Model, and Industry Planning Service Model.

Worked with the marketing group and the model project directors to develop new sources of revenue for the U.S. model-based forecasting services from both subscription and contract research sources.

Executive Director, Wharton Annual (Long-Term)

Model Project

1/77-12/79

Responsible for directing model development/enhancement, forecasting, scenario analysis, contract research, forecast review meetings, and client support activities for U.S. Long-Term Forecasting Service.

Under the direction of Dr. Schink, the Wharton Annual Model was expanded in scope (from 850 variables to 2300 variables) to incorporate energy detail, demographic detail, and producer price detail. These changes were designed to enhance the Annual Model's usefulness for long-term planning and analysis. Research and development contracts to support the Long-Term Model enhancement activities were obtained from the Federal Energy Administration, the Electric Power Research Institute, the Office of Naval Research, Ross Laboratories, and the U.S. Department of Energy.

These model enhancement activities have led to contracts to perform long-term policy and scenario analyses for the groups supporting development as well as contracts from others such as the American Gas Association, the Whirlpool Corporation, the New York Stock Exchange, the General Accounting Office, the Joint Economic Committee, the U.S. Department of Commerce, Sun Oil Company, and the U.S. Department of Defense.

Executive Director, Special Projects

6/72-1/77

Directed the Commodity Model Maintenance Project (a joint effort with Charles River Associates, Inc.). This project involved the development of econometric models of the world markets for nonferrous mineral commodities. These models were used to produce five-year projections of demand, supply, and price, and to evaluate the effects of alternative General Services Administration commodity disposal patterns on these commodity markets. Over a four-year period, twelve markets were analyzed: Cobalt, Copper, Chromite, Lead, Manganese, Mercury, Molybdenum, Platinum-Palladium, Rubber, Tin, Tungsten, and Zinc.

Developed a regional econometric model of Luzerne County, Pennsylvania, to evaluate the effects of Hurricane Agnes on this area.

Developed a large model of the U.S. auto industry based on time-series and cross-section data. This model, which was developed for the Transportation Systems Center of the U.S. Department of Transportation, was designed as a tool to investigate the longer-term determinants of the size and composition of the U.S. auto fleet and to provide a tool for the analysis of various potential policy initiatives.

Developed a model based on cross-section data for the National Association of Broadcasters to analyze the effects of increasing the number of imported signals carried via cable systems on the audience for local stations.

Participated in the development of Wharton's timesharing software system. Dr. Schink was involved in the selection of a time-sharing vendor, assembly of the programming staff, specification of the software capabilities, the incorporation of Wharton data bases and models in the new software system, the development of documentation and the initial marketing effort.

Participated in the design of the Wharton World Model system.

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA
Visiting Lecturer

Spring '73

THE BROOKINGS INSTITUTION, Washington, D.C.

Principal Investigator, Quarterly Model Project

6/69-6/72

Responsible for directing the staff of the model project with guidance from senior advisors (primarily Lawrence R. Klein and Gary Fromm).

Specified and estimated the version of the Brookings Model which was used to perform analyses presented at the Conference on Research in Income and Wealth, Harvard University, November 1969.

Constructed a condensed version of the Brookings Model to study the gains and losses in simulation and forecasting accuracy associated with disaggregation of econometric models.

Organized a major conference devoted to a review of econometric model building, the contributions of the Brookings Model project, and the perspective for future developments, held in Washington, D.C. during February 1972.

UNIVERSITY OF MARYLAND

Lecturer, Department of Economics

9/68-6/72

Taught full-time during the 1968-69 school year and part-time (one course per semester) thereafter.

Courses taught include microeconomic theory, macroeconomic theory, mathematics for economists, and econometrics at both the undergraduate and graduate levels.

MATHEMATICA, Princeton, N.J.

Consultant

10/67-6/68

Worked on the Northeast Corridor Project studying the determinants of travel between city-pairs.

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA

Research Fellow, Economic Research Unit

9/65-8/68

Worked for Lawrence R. Klein on the Wharton Quarterly Model Project. Under his direction, reestimated the entire model, developed computer software to solve the model, and mounted the model on a timesharing system.

Worked for Phoebus Dhrymes on several studies. Functioned as a programmer in implementing various distributed lag estimation techniques (search technique and spectral analysis technique) and estimated equations using three-stage least squares for a study of corporate investment, dividend, and borrowing policies.

Worked for Edwin Burmeister and F. Gerard Adams on several projects.

EDUCATION

Ph.D. in Economics, University of Pennsylvania, 1971

Thesis (Unpublished): Small Sample Estimates of the Variance Covariance Matrix of Forecast Error for Large Econometric Models: The Stochastic Simulation Technique. Won William Carey Prize for best Ph.D. thesis in economics at the University of Pennsylvania, 1971. Thesis Advisor: Professor Lawrence R. Klein

B.S. in Economics, University of Wisconsin at Madison, 1964

PROFESSIONAL HONORS AND ASSOCIATIONS

Board of Directors, Wharton Econometric Forecasting Associates, 1972-87.

William Carey Prize for Best Thesis in Economics, U of PA.

Ford Foundation Dissertation Grant, 1967.

Research Fellowship, Economic Research Unit, University of PA.

Member, American Economic Association & the Econometric Society.

PUBLISHED ARTICLES

"Short and Long Term Simulations with the Brookings Model" (with Gary Fromm and Lawrence R. Klein), in Bert G. Hickman (ed.) Econometric Models of Cyclical Behavior, New York: Bureau of Economic Research, 1972.

"Aggregation and Econometric Models" (with Gary Fromm), International Economic Review, February 1973.

"A Disaggregated Quarterly Model of U.S. Trade and Capital Flows: Simulations and Tests of Policy Effectiveness" (with Sung Y. Kwack), in Gary Fromm and Lawrence R. Klein (eds.), The Brookings Model: Perspective and Recent Developments, Amsterdam and New York: North-Holland Publishing Co. and American Elsevier Publishing Co., Inc., 1975.

"An Evaluation of the Predictive Abilities of a Large Model: Post-Sample Simulations With the Brookings Model," in Gary Fromm and Lawrence R. Klein (eds.), The Brookings Model: Perspective and Recent Developments, Amsterdam and New York: North-Holland Publishing Company and American Elsevier Publishing Company, Inc., 1975.

"The Brookings Quarterly Model: As An Aid to Longer Term Economic Policy Analysis," International Economic Review, February 1975. Reprinted in Lawrence R. Klein and Edwin Burmeister (eds.) Econometric Model Performance: Comparative Simulation Studies of the U.S. Economy, Philadelphia: University of Pennsylvania Press, 1976.

"An Overview of Econometric Model Building In And Of the U.S.A.: Subnational Macro Econometric Modeling," published in Proceedings of the NSF-CNRS Conference on Macroeconometric Models and Economic Forecasting, Universite de Paris, X-Nanterre, November 22-26, 1976.

"The International Tin Agreement: A Reassessment" (with Gordon W. Smith), *Economic Journal*, December 1976, Reprinted in United Malaysia Bank Corporation Economic Review, Vol. 13, No.2, 1977.

"The Practice of Macroeconometric Model Building and Its Rationale," (with E.P. Howrey, L.R. Klein, and M.D. McCarthy), published in Large-Scale Macroeconometric Models, Amsterdam, New York, and Oxford: North-Holland Publishing Company, 1981, pp. 19-58.

RESEARCH REPORTS, CONFERENCE PRESENTATIONS AND TESTIMONY

"Estimation of Forecast Error in a Dynamic and/or Non-Linear Econometric Model," presented at the Econometric Society Meetings, Evanston, IL, December 1968.

"Simulation with Large Econometric Models," presented at the ACM Summer Meetings, Denver, CO, June 1970.

Nonferrous Mineral Commodity studies prepared for the Office of Stockpile Disposal of the General Services Administration (jointly with various staff members at Charles River Associates).

Forecasts and Analysis of the Molybdenum Market, 12/72

Forecasts and Analysis of the Mercury Market, 3/73

Forecasts and Analysis of the Lead Market, 6/73

Forecasts and Analysis of the Zinc Market, 7/73

Forecasts and Analysis of the Cobalt Market, 3/74

Forecasts and Analysis of the Tungsten Market, 6/74

Forecasts and Analysis of the Lead Market, 5/75

Forecasts and Analysis of the Tungsten Market, 9/75

Forecasts and Analysis of the Manganese Market, 10/75

Forecasts and Analysis of the Mercury Market, 11/75

Forecasts and Analysis of the Manganese Market, 11/76

An Econometric Model of Luzerne County, prepared for the Department of Commerce, Commonwealth of Pennsylvania, June 1974.

An Analysis of the Automobile Market: Modeling the Long-Run Determinants, 3 Volumes (with Colin Loxley), prepared for the U.S. Department of Transportation, Transportation Systems Center, Cambridge, MA, February 1977.

"Financing the Energy Program" (with Lawrence R. Klein and Richard M. Young), testimony before the Subcommittee on Administration of the Internal Revenue Code of the Committee on Finance, U.S. Senate, June 6, 1977.

"The Oil Equalization Tax" (with William Finan), testimony before the Committee on Energy and Natural Resources, U.S. Senate, September 16, 1977.

The Impacts of Cable TV on Local Station Audience (with Sheela Thanawala), prepared for the National Association of Broadcasters, 1771 N Street, N.W., Washington, D.C. 20036, March 1978.

Analysis of the Macroeconomic Impacts of the Proposed NHTSA Passenger Car MPG Standards, prepared for the Chase Manhattan Bank, N.A., 1 Chase Manhattan Plaza, New York, N.Y. 10015, January 1979.

"U.S. Economic Prospects for the Next Ten Years," The Wharton Magazine, Winter 1979.

Simulation Study of Eight Petroleum Supply Disruption Scenarios, prepared for the Macroeconomic Analysis Division of the Energy Information Administration, U.S. Department of Energy, April 1979.

"Input-Output in the Context of the Wharton Annual Model" (with Gene D. Guill and Yacov Sheinin), Wharton Annual Model Working Paper Number 6, April 1978. Presented at the Seventh International Conference on Input-Output Techniques, Innsbruck, Austria, April 1979.

"Optimal Control and Macroeconomic Models," a paper prepared as part of a study entitled Mexico—Economic Policy Analysis—1978/1983: A Macroeconometric Model of Mexico and Control Theory Applications, by Oscar Adolfo Rufatt, under a grant from the Inter-American Development Bank, May 1979.

"Integration of Neoclassical Production Function Theory and Input-Output Matrices" (with Gene D. Guill and Yacov Sheinin), presented at a Seminar on Production Functions at the U.S. Department of Energy, May 21, 1979.

The Wharton Annual Energy Model: Development and Simulation Results (with William Finan), prepared for the Electric Power Research Institute, 3412 Hillview Avenue, Palo Alto, California 93404, EPRI EA-1115, Project 440-1, July 1979.

A Historical Analysis of the Impacts of Indexed Depreciation (with Sheila Bassett and Yacov Sheinin), prepared for the Sun Company, Inc., Radnor, PA, October 1979.

"A Macroeconomic Analysis of the Carter Energy Plan," presented at the Conference on Energy Prices, Inflation, and Economic Activity, Massachusetts Institute of Technology, Cambridge, MA, November 9, 1979.

The Macroeconomic Effects of Oil Supply Curtailments in 1985 and 1990 (with William Finan), prepared for the U.S. Department of Energy, December 1979.

A Macroeconometric Model to Allow Energy Policy Analysis of Changing Fuel Specific Prices on Production Capabilities (with Gene D. Guill and Yacov Sheinin), prepared for the Macroeconomic Analysis Division of the Energy Information Administration, U.S. Department of Energy, April 1980.

The Development of an Analytical Procedure for the Evaluation of the Effect on Energy Price Increases on Non-energy Commodities (with Gene D. Guill and Yacov Sheinin), prepared for the Macroeconomic Analysis Division of the Energy Information Administration, U.S. Department of Energy, April 1980.

Impact of Local Content Legislation On U.S. and World Economies, (with Colin Loxley), prepared for the Japan Automobile Manufacturers Association, Inc., July 1983.

A Macroeconomic Analysis Of a Program For the Redevelopment of Troubled U.S. Industries, prepared for The Sun Company, 100 Matsonford Road, Radnor, PA 19087, October 1983.

Impact of the FCC Access Charge Plan On the U.S. Economy, (with Vijaya G. Duggal and John Green), prepared for the American Telephone & Telegraph Company, November 1983.

Brief Macroeconomic Analysis of S.1435: The Housing Opportunity and Mortgage Equity Act of 1983 (Home Act), prepared for the National Association of Home Builders of the United States, 15th and M. Streets, NW, Washington, DC, 20005, December 1983.

Testimony on Electric Power Demand in the PECO Service Area before the Pennsylvania Public Utility Commission, January 1985.

Analysis of the Impact of the Treasury Department's Initial 1985 Tax Plan on the Agricultural Sector of the Economy, prepared for the Granada Management Corporation, March 1985.

Impact of a Ban on the Use of Alachlor, prepared for the Monsanto Agricultural Products Company (with John M. Urbanchuk), March 1985.

Rebuttal Testimony on Projections of Electric Power Demand in the PECO Service Area, Pennsylvania Public Utility Commission, April 1985.

Testimony on the issue of the Economic Impact of the Gibbons Bill on the United States Economy before the Subcommittee on Trade of the Committee on Ways and Means, Washington, D.C., June 1985.

Assessment of the Likely Impacts of The President's Tax Proposals on Rental Housing Markets, prepared for the Tax Fairness for Housing Coalition (with Art Doud and William C. Apgar and H. James Brown of the Joint Center for Housing Studies of M.I.T. and Harvard University), July 1985.

Economy-Wide Impacts of Agricultural Sector Loan Losses, prepared for the Food and Agricultural Policy Research Institute (FAPRI) (with John M. Urbanchuk), July 1985.

Evaluation of the Impacts of the President's Tax Proposals on the Real Estate Industry and the Economy, prepared for the Real Estate Securities and Syndication Institute, October 1985.

An Analysis of the Macroeconomic Impacts of Tariff Induced Increases in U.S. Softwood Lumber Prices, prepared for the Council of Forest Industries, October 1985.

Testimony on The Economic Impacts of Implementing the Tax Reform Act of 1985 (H.R. 3838) before the Senate Committee on Finance, Washington, D.C., January 1986.

Rebuttal and Sur-Surrebuttal Testimony for PECO on the Impact of a Rate Increase on the Philadelphia Economy before the Pennsylvania Public Utility Commission, February-March 1986.

The Income of Organized Crime, prepared for the President's Commission on Organized Crime, March 1986.

National Consequences of Exporting Alaska North Slope Crude Oil, prepared for the Exxon Shipping Company, May 1986.

The Macroeconomic Costs of Limiting the Deductibility of Advertising Expenses, prepared for the American Association of Advertising Agencies, Inc., the American Advertising Federation, and the Association of National Advertisers, Inc., June 1986.

Pricing Telecommunications Services: The Impact on the U.S. Economy of Subscriber Line Charges, prepared for the American Telephone & Telegraph Company, August 1986.

GE Vehicle Price Forecasting System, prepared for the GE Credit Auto Leasing Company (with John A. Del Rocilli), September 1986.

Testimony on Home Air Conditioning Saturation Rates and its Effect on Peak Electricity Demand before the Indiana Public Service Commission, December 1986.

Effects on the New York Economy of Regulation of its Telecommunications Market, prepared for the American Telephone & Telegraph Company, January 1987.

Deregulating Telecommunications: Economic Impacts on New York State, prepared for the New York Telephone Company, February 1987.

Testimony on the Economic Effects of Relocating an Automobile Dealership in Canonsburg, Pennsylvania, before the Pennsylvania Board of Motor Vehicle Dealer Licensing, January 1987.

Testimony on the Determination of an Appropriate Discount Rate to Apply to the Expected Income of a Real Estate Syndication before the American Arbitration Association in New York, March 1987.

Testimony on the Economic Effects of Relocating an Automobile Dealership in Red Lion, Pennsylvania before the Pennsylvania Board of Motor Vehicle Dealer Licensing, March 1987.

Testimony on the Economic Effects of Allowing PHH, A Retail Auto Broker, to Operate in Pennsylvania before the Pennsylvania Board of Motor Vehicle Dealer Licensing, August 1987.

"Target Industry Study for Iron and Washington Counties, Utah" (with Kate Rodenrys), prepared for Pacific Power and Light Company, March 19, 1988.

The Impact on the U.S. Economy of Regulatory Changes in the Interstate Long-Distance Telecommunications Market, prepared for the American Telephone and Telegraph Company, October 1987.

Testimony on the Economic Effects of Relocating an Automobile Dealership in Minneapolis-St. Paul, Minnesota before the Minnesota Court of Common Pleas, October 1987.

Testimony on the Evaluation of Dealer Performance Related to Termination of the Dealership in Erie, Pennsylvania before the Pennsylvania Board of Motor Vehicle Licensing, October 1988.

Testimony on the Competitiveness in the Markets Served by Buckeye Pipe Line Company, L.P. in Oil Product Transportation, Phase I (Docket No. IS87-14-000), before the Federal Energy Regulatory Commission, Washington, D.C., April 1989.

Prepared Direct Testimony (Draft) on the Competitiveness of Markets Served by Sun Pipe Line Company in Oil Product and Crude Oil Transportation, Document Supplied to General Counsel, June 1989.

Analysis of Ohio and Indiana Markets for Refined Petroleum Product Transportation, Prepared for Buckeye Pipe Line Company, L.P., June 1989.

Analysis of Eastern Product Systems Market for Refined Petroleum Product Transportation, Prepared for Sun Pipe Line Company, July 1989.

Testimony on the Effects of Adding a New Buick Dealership in San Diego, CA, Before the California New Motor Vehicle Board, November 1989.

Deposition on the Effects of Adding a New Cadillac Dealership in Los Angeles, CA, Related to Proceedings Before the California New Motor Vehicle Board, 1989.

Deposition on the Effects of Terminating a Ford Dealership in Youngstown, OH, Related to Proceedings Before Ohio New Motor Vehicle Commission, 1989.

"Rural/Urban Cross Subsidies in the U.S. Long Distance Markets" (with Jerry Langin-Hooper), prepared for Bell Canada, 1990.

Deposition on the Effects of Adding a New Toyota Dealership in Los Angeles, CA, Related to Proceedings Before the California New Motor Vehicle Board, 1990.

Testimony on the Effects of Terminating a Jaguar Dealership in Orange County, CA, Before the California New Motor Vehicle Board, March 1990.

Testimony on the Effects of Adding a New Ford Dealership in Beverly Hills, CA, Before the California New Motor Vehicle Board, March-April 1990.

Analysis of Competition in Markets Served by Atlantic Pipe Line Company, Prepared for Sun/Atlantic Pipe Line Company, April 1990.

Developed an Econometric Model for Forecasting and Analyzing U.S. Auto and Light Truck Demand for a Consortium of Japanese Auto Makers, May 1990.

Testimony on the Effects of Adding a New Toyota Dealership in Tulsa, OK, Before the Oklahoma Motor Vehicle Dealer Commission, July 1990.

Prepared Analysis and Wrote Testimony Related to the Competition Faced by Amoco Pipe Line Company in Crude Oil Transportation, FERC Docket No. IS90-30-000, August 31, 1990.

Testimony on the Effects of Adding a New Toyota Dealership in Pittsburgh, PA, Before the Pennsylvania Board of Motor Vehicle Licensing, October 1990.

Presentation on the Effects of Adding a New Ford Dealership in Kansas City, Before the Ford Dealer Policy Board, October 1990.

"The Effects of Long-Distance Competition on Small and Rural Jurisdictions in the United States with Comparisons to Newfoundland" (with Jerry Langin-Hooper), prepared for Newfoundland Telephone, November 1990.

Deposition on the Effects of Adding a New Honda Dealership in Minneapolis-St. Paul, Related to Proceedings in Minnesota State Court, January 1991.

Testimony on Calculating the Cost of Capital Using the CAPM Model, A Barometer Group of Companies, and a Risk Premium Approach Rebutting Testimony by a Commission Staff Witness, prepared for Consumers Power Company and Presented Before the Michigan Public Service Company, Case No. U-9346, January 15, 1991.

Prepared Analysis and Wrote Testimony Related to the Competition Faced by ARCO Pipe Line Company in Oil Product Transportation, FERC Docket No. IS90-34-000, February 1, 1991.

Prepared Analysis and Wrote Testimony Related to an Evaluation of Georgia Power's Proposed Integrated Resource Plan Including Demand-Side Options Related to General Regulatory Treatment and Specific Programs for Interruptible Service Tariffs, High Efficiency Lighting, and Residential Demand-Side Initiatives, Docket No. 3979-U, Georgia Public Service Commission, April-May, 1991.

Testimony on the Competitiveness of Markets Served by Williams Pipe Line Company in Oil Product Transportation, FERC Docket No. IS90-21-000, June 1991.

Prepared a Study on the Design of a Residential Time-of-Use Experiment for Delmarva Power and Light, Wilmington, Delaware, June 10, 1991.

Testimony Presented Before the Canadian Radio-Television and Telecommunications Commission, Regarding Unitel's Application for Interconnection with Bell Canada, et. al. June 25, 1991.

Testimony on Evaluating Ratemaking Alternatives and Performance Incentives Including Revenue Decoupling (ERAM) to Encourage DSM by Electric Utilities, prepared for Orange & Rockland for presentation to the New York State Public Service Commission Staff, Case 89-E-176, July 18, 1991.

"Macroeconomic and Fiscal Effects of the Luxury Tax on High-Line Cars" prepared for the Federation Against Inequitable and Regressive Taxation (FAIRTAX), February 1992.

"Reply Comments on Behalf of Southwestern Bell Telephone Company," prepared for Southwestern Bell Telephone Company for presentation to the Arkansas Public Service Commission, March 26, 1992.

Testimony on the Differential Rate of Return Risk Faced by GTEC's Equity Investors, prepared for GTE California for presentation to the Public Utilities Commission of the State of California, May 1, 1992.

PROFESSIONAL QUALIFICATIONS
OF
JOSEPH F. BRENNAN
AUS CONSULTANTS - UTILITY SERVICES GROUP

I have been involved in utility matters for 30 years. I have testified as a rate of return expert in cases involving electric, steam heating, waste management, water, sewer, gas, telephone, cable television, microwave, bus and maritime transportation industries before 30 state regulatory bodies, four federal commissions and numerous municipal agencies in the continental United States, Hawaii, Puerto Rico, The Virgin Islands and Canada. I have testified on the related subjects of double leverage, interest synchronization for rate-making income tax expense purposes, affiliated interests, telephone toll settlement ratios, jurisdictional power supply agreements, and customer class rate of return differentials. I have also testified as to the valuation of utility property and stock.

I have been engaged as a financial consultant by several governmental agencies and by many utility companies, and have been involved in more than 100 private placements of utility fixed income securities with institutional investors.

BACKGROUND AND EXPERIENCE

1967 to Date

I am Chairman of the Board of AUS Consultants and the Utility Services Group, Mt. Laurel, New Jersey. In late 1967, I founded Associated Utility Services, Inc., the predecessor to AUS Consultants (AUS). AUS is an independent firm comprised of several different groups (utility ratemaking, valuation, market research, financial software, industry analysis, and C. A. Turner publications). The Utility Ratemaking Group specializes in every aspect of ratemaking, ranging from rate of return, depreciation, cost of service, tariff design, lead/lag studies, and ratemaking accounting. Services have been performed for natural gas, electric, telephone, water, wastewater, cable television, maritime shipping, products pipeline, railroad, bus transportation, steam heating, and other enterprises whose price of service is established by a governmental or regulatory body. The Valuation Group values companies and assets (tangible and intangible), including the value of intelligence transfer, primarily in conjunction with mergers, acquisitions, and leveraged buy-outs, in the non-regulated environment; and it values property in ad valorem tax cases. The Market Research Group performs consumer market research, including customer satisfaction surveys (for AT&T), political pollings (ABC/Washington News Post), and tracking TV ads, also essentially in the non-regulated environment. The Software Group provides computer software for utility asset management, including depreciation, cost of service, and financial software. The Industry Analysis Group provides forecasts of energy prices and economic analyses of the auto and steel industries, as well as studies regarding market share and market dominance in both a regulated and unregulated environment. C. A. Turner Utility Reports provides utility financial data and derived ratios monthly and annually to about 1,000 subscribers which include utilities, regulators, individuals,

brokerage firms, lawyers, and libraries.

1956 to 1967

American Water Works Service Company, Treasurer. In 1956, I was employed by the service company subsidiary of a water utility holding company which owned approximately 90 operating utility companies throughout the United States. Initially, I was assigned to its Treasury Department. In early 1961, I was elected Assistant Treasurer, and in the middle of 1966, Treasurer of many of the holding company's operating subsidiaries.

1950 to 1956

Gulf Oil Corporation. In 1950, I was employed by the Gulf Oil Corporation's Philadelphia Office and was assigned to the Financial Accounting Department. I was employed by Gulf Oil until 1956, with a two-year leave of absence from 1952 to 1954 for service in the United States Army.

Partial List of Clients Served

CATV

American Television
Communication Corporation
Bakersfield Cable Television
Cable Owners Association - California,
Connecticut, New England,
Pennsylvania, Rocky Mountain,
Vermont
Cablecom-General, Inc.

Canadian Cable Television
COMCAST Cable Communications, Inc.
Kern County Cable Television
LVO Cable, Inc.
National Cable Television Association
National Cable Television Owners
Association
San Juan Cablevision
Warner Cable Corporation

ELECTRIC

Appalachian Power Company
Arkansas Power and Light Company
Atlantic City Electric Company
Canal Electric Company
Carolina Power & Light Company
Conowingo Power Company
Consumers Power Company
Delmarva Power & Light Company
Duquesne Light Company
Fitchburg Gas & Electric Light Co.
Hawaiian Electric Company
Indiana Michigan Power Company
Iowa-Illinois Gas & Electric Company
Kentucky Power Company
Lockhart Power Company
Metropolitan Edison Company

Michigan Power Company
Monongahela Power Company
Nantahala Power & Light Company
Ohio Edison Company
Ohio Power Company
Ohio Valley Electric Company
Orange and Rockland Utilities, Inc.
Pennsylvania Electric Company
Pennsylvania Power Company
Pennsylvania Power & Light Company
Philadelphia Electric Company
The Potomac Edison Company
Potomac Electric Power Company
Tampa Electric Company
The Washington Water Power Company
West Penn Power Company
Western Massachusetts Electric Company

NATURAL GAS DISTRIBUTION AND PIPELINE

Algonquin Gas Transmission Company	Lone Star Gas Company
American Natural Gas Company	Michigan Power Company (Gas Div.)
Bay State Gas Company	National Fuel Gas Distribution Corp.
Buckeye Pipe Line Company	New Jersey Natural Gas Company
Carolina Pipeline Corporation	North Penn Gas Company
Citizens Gas & Coke Utility	Northern Utilities, Inc.
Columbia Gas of Maryland	Oklahoma Natural Gas Company
Columbia Gas of Pennsylvania	Panhandle Eastern Pipeline Company
Columbia Gas of West Virginia	Pennsylvania Gas Association
Consolidated Gas Transmission Corp.	Pennsylvania Gas & Water Company
Delmarva Power & Light Company	Peoples Natural Gas Company
East Ohio Gas Company	Philadelphia Electric Co. (Gas Div.)
Elizabethtown Gas Company	T.W. Phillips Gas & Oil Company
Equitable Gas Company	Providence Gas Company
Great Lakes Gas Transmission Co.	Public Service Co. of N. Carolina, Inc.
Honolulu Gas Company	The Southern Connecticut Gas Company
Hope Gas, Inc.	Texas Eastern Transmission Corp.
Hope Natural Gas Company	Transwestern Pipeline Company
Indiana Gas Company	UGI Corporation
Kentucky-West Virginia Gas Company	Virginia Electric & Power Co. (Gas Div.)
	West Ohio Gas Company

WATER & SEWER

American Water Works Company (over 30 subsidiaries)	Long Island Water Corporation
Artesian Water Company	Middlesex Water Company
Atlantic City Sewerage Company	Monmouth Consolidated Water Company
Barnstable Water Company	New Haven Water Company
Bridgeport Hydraulic Company	Newtown Artesian Water Company
Citizens Utilities Company	Pennichuck Water Works
Clinton Water Works	Pennsylvania Gas & Water Company
Commonwealth Water Company	Philadelphia Suburban Water Company
Edgartown Water Company	Roaring Creek Water Company
Elizabethtown Water Company	St. Louis County Water Company
Florida Water & Utilities Company	Seymour Water Company
Hackensack Water Company	Spring Valley Water Company
Indian Rock Water Company	Utilities and Industries Corporation
Kaanapali Water & Sewer Co.	Washington Water Power Company
	Western Pennsylvania Water Company
	York Water Company

REGULATORY AND GOVERNMENTAL

City of Anchorage, Alaska
City of New Orleans, LA
Cities of Rochester, New York and
Baltimore, Maryland--Transit
Arizona Corporation Commission
Baltimore County, Maryland
Bucks County, Pennsylvania
Collier County, Florida
Commonwealth of Puerto Rico

Delaware Public Service Commission
re: all regulated utilities
State of Hawaii Department of
Planning and Economic Development
Internal Revenue Service Commission
Medford Township, NJ
U.S. Department of Justice--
Washington Metro (D.C. Transit)
The U.S. Virgin Islands

TELEPHONE

Bell Atlantic Corporation
Bell of Pennsylvania
Diamond State Telephone Company
Chesapeake & Potomac Telephone Co.
Commonwealth Telephone Company
Eastern Illinois Telephone Corp.
Illinois Consolidated Telephone Co.
Norfolk & Carolina Telephone Company
Puerto Rico Telephone Company

Quincy Telephone Company
Rochester Telephone Corporation
Virgin Islands Telephone Company
And over 50 operating subsidiaries of:
ALLTEL Corporation
Central Telephone Company
Continental Telecom, Inc.
GTE Corporation
United Telephone System, Inc.

PERSONAL

Education: Temple University - B.S. Business Administration

Professional Affiliations:

American Gas Association (and a member of Rate Committee)
National Association of Water Companies
National Cable Television Association
National Society of Rate of Return Analysts (and a member
of Board of Directors)
New England Gas Association
United States Telephone Association

Articles Published:

"The Water Industry - Regulation," Financial Analysts Journal,
March-April 1967.

"The Double Leverage Concept Revisited," Public Utilities Fortnightly,
April 26, 1973 (co-authored with Ralph K. Humphreys).

"Rate of Return Differential by Class--A New Dimension to Cost of
Service," Public Utilities Fortnightly, April 1980.

"Does Utility Long-term Debt Really Cost More than Common Equity?",
Public Utilities Fortnightly, February 1982.

"Does the Constant Growth Discounted Cash Flow Model Portray Reality?",
Public Utilities Fortnightly, January 1988.

Guest Speaker:

American Bar Association Seminar - 1977, 1982, 1986, 1988
American Gas Association Finance Committee Seminar - 1982, 1984, 1987 and 1989
Arizona State University - 100th Anniversary Celebration -
Telecommunications Day - 1983
Brown University - 1979, 1980
Edison Electric Institute, Financial Forum - 1984
Great Lakes Conference of Public Utility Commissioners - 1978
Indiana CPA Society - 1989
Iowa State University Conference on Public Utility Valuation and
the Rate Making Process - 1970, 1979, 1984
Iowa State University - Mid-America Regulatory Conference - 1983
NARUC Seminar in 1973 and 1974
NARUC Annual Convention - 1977
National Association of Water Companies' Annual Convention - 1976, 1980
National Cable Television Association Annual Convention - 1976, 1977
National Society of Rate of Return Analysts - 1989
New England Water Works Association, Boxborough, MA - 1984
New Jersey Utilities Association - 1975
New Mexico State University - A Seminar on Regulation and the Cost of
Capital - 1982
New York Cable Bureau Seminar - 1983
New York Independent Telephone Association Annual Meeting, 1975, 1981
Pennsylvania Chapter of NAWC - Panel Discussion - 1983
Pennsylvania Gas Association - Western Division Seminar - 1984
Second Annual Convention of the National Association of
Regulatory Attorneys - 1979
Southwestern Utilities Conference for Mid-Management Personnel - 1979
Temple University, Conference regarding Cost of Capital - 1983
Utilities Law Institute - 1986

**PROFESSIONAL QUALIFICATIONS
OF
FRANK J. HANLEY
AUS CONSULTANTS - UTILITY SERVICES GROUP**

Has been involved in utility matters for 27 years, and has testified on financial matters including fair rate of return before 25 state regulatory agencies, numerous local and county regulatory bodies and the Federal Energy Regulatory Commission on behalf of electric, water, gas, steam heating, telephone, and cable television clients. Has testified before the U.S. Tax Court as an expert witness on the value of closely held utility common stock, before a tax court in New Jersey concerning the economic evaluation of property, and before a Senate Committee in Nebraska re proposed cable television legislation. In addition to investor-owned clients, has appeared on behalf of a number of municipalities and also the Delaware Public Service Commission and the Arizona Corporation Commission. Has arranged private placements of fixed capital securities with institutional investors aggregating over \$100 million on behalf of a prior employer's subsidiary companies and clients of AUS Consultants - Utility Services Group.

EXPERIENCE

1971 to Date

AUS Consultants - Utility Services Group, Mt. Laurel, New Jersey. Joined firm in 1971 as Vice President. Elected Senior Vice President in 1975. Elected President in September of 1989. Principal duties and expertise are to offer fair rate of return opinion on behalf of clients before the appropriate regulatory agency and to testify (including withstanding cross-examination) to that opinion. Has designed short- and long-term financing programs for investor-owned utility clients and arranged for the private placement of their fixed capital securities with sophisticated institutional investors. Has testified before the U.S. Tax Court on the value of closely held utility common stock, and a New Jersey court utilizing the capitalization of income technique in the valuation of utility property.

1969 to 1971

Philadelphia National Bank - Financial Planning Officer. Responsibility included the preparation of the annual and five-year profit plans. Was financial liaison with computer team in design and installation of computerized Responsibility Accounting System. Assisted correspondent banks in matters of recapitalization and merger.

1967 to 1969

Philco-Ford Corporation - Communications and Technical Services Division, Fort Washington, Pennsylvania - Senior Financial Analyst. Had responsibility for analyzing request for bid and quotation concerning new and renewal contracts with governmental agencies. Had pricing responsibility. Assisted legal team in contract negotiations.